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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/590,331	06/08/2000	Iain J. Slater	P/62128	9951

156 7590 03/06/2006

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EXAMINER

JAIN, RAJ K

ART UNIT	PAPER NUMBER
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2664

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/590,331

Applicant(s)

SLATER, IAIN J.

Examiner

Raj Jain

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeguchi et al (US006567422B1).

Regarding claims 15 and 18, Takeguchi discloses a communications system (see Fig. 1 and abstract, the communications system discloses a method and network for synchronization and timing loop prevention within an SDH architecture) comprising;

a) a plurality of interconnected network elements (NE) 10a-10d (Fig. 3, shows the first embodiment of a basic SDH configuration of network elements) in which each NE is associated with unique NE identifier (NEID) value (see col 5 lines 24-27, each network element has a unique identifier) and comprises one or more input ports and one or more output ports (see Fig. 3, a dual ring topology shows multiple input/output ports within each NE.);

b) each input port being provided for inputting from an adjacent one of the plurality of NEs (See Fig. 3, NE 10a has input ports to input from 10d and 10b NEs, similarly the other NEs within the configuration also have input ports for inputting from adjacent NEs as well), a synchronization signal and quality level indicator for indicating a quality of a source of the synchronization signal (see col 2 lines 40-50, a network

Art Unit: 2664

synchronization controller comprises a clock status message controller, disposed in each network element on the network, which produces and sends a clock status message composed of clock **quality data** and synchronization control data. The clock quality data indicates the quality level of a clock signal that the each network element supplies to its neighboring network element), and being associated with a source identifier (SD) value that identifies the input port at which each synchronization signal is input from the said adjacent NE, the SID value of each input port comprising the NEID value of the adjacent NE (a second embodiment of the invention (Fig. 8) discloses source identifier (SID) values used to overcome timing loop condition within the invention. Thus it would have been obvious to in order to eliminate possible timing loop issue a unique source identifier for each NE must be used so that each NE uses a different clock signal. In Fig. 8, bits b2-b4 are used to carry the SID values, thus each clock status message sent from an NE comprises of the SID value of each network element including the primary reference timings for the master network element designated as GB, see col 7 lines 39-60.);

c) each output port of each NE being provided for outputting to an adjacent NE, a selected one of the input synchronization signals and the QLI (see Fig. 3 and col 2 lines 40-50, a network synchronization controller comprises a clock status message controller, disposed in each network element on the network, which produces and sends a clock status message composed of clock **quality data** and synchronization control data. The clock quality data indicates the quality level of a clock signal that the each network element supplies to its neighboring network element.),

and comprising a QLI setting means for setting a value of a QLI output at that output port based on a comparison of the SID value at that output port with the SID value at the input port of the selected one of the input synchronization signals (see Fig. 2, col 4 lines 47-67, based on ITU-T standard different quality levels are defined to indicate the clock quality data. See col 6 lines 3-33 and Fig. 4, which shows a ring failure between NEa and Neb thus interrupts the clock signal, causing the clock selector 12c to select an appropriate clock source on the basis of the received clock status messages; that is, it compares (S1=1011, Z1#2:b) received from NEb with (S1=1111, Z1#2:d) received from NEd. This comparison causes the clock selector 12c to choose the holdover clock of NEb as its reference-timing signal, and accordingly, the clock status message controller 11c in NEc sends (S1=1011, Z1#2:c) to the downstream network element NEd.); and

d) a central management means comprising means for setting the SID value of each port of each NE to the appropriate NED value (see Fig. 11, col 9 lines 39-60, Fig. 12 lines 17-57, a network management means 20, monitors and controls the SDH network 100c. FIG. 12 is an detailed internal block diagram of a network synchronization controller 10. The S1 byte monitor 11-1 monitors clock status messages, each of which comprises synchronization control data (i.e., GB flag and SID) and clock quality data (i.e., SSMB), and sends them to the clock selector 12. The S1 **byte setting** unit prepares a clock status message in S1 byte, which contains synchronization control data (GB flag and SID) and clock quality data (SSMB). The Z1#2 byte setting unit 11-2 sets the **identifier of the network element** to Z1#2 byte.

Art Unit: 2664

Thus the network management station 20 sets the SID value of each NE port element and thus forming the NEID value.).

Regarding claim(s) 16 & 19, Takeguchi discloses each NE comprises sending means for sending its own NE identifier to each NE to which it is directly connected (Figs 3 & 7, col 5 lines 14-35, the master NE supplies other network element nodes with a reference clock signal and quality level for network synchronization.).

Regarding claim(s) 17 & 20, Takeguchi discloses repeatedly sending of NE identifier values (see Fig. 8, col 8 lines 4-35, the master network element sends the clock signal with primary reference timing to its adjacent NE, each NE serves to send the primary signal to its neighboring NEs until it returns to the originating NE and therefore the originating NE recognizes itself as the Master network element).

Response to Arguments

Applicant's arguments filed 21 December 2005 have been fully considered but they are not persuasive.

With respect to claims 15 -20, Applicant contends Takeguchi does not disclose specifically, "the setting the SID values of each port to the NE identifier values of the NE to which that port is directly connected."

Examiner respectfully disagrees, see Fig. 11, col 9 lines 39-60, Fig. 12 lines 17-57, a network management means 20, monitors and controls the SDH network 100c. FIG. 12 is an detailed internal block diagram of a network synchronization controller 10. The S1 byte monitor 11-1 monitors clock status messages, each of which

Art Unit: 2664

comprises synchronization control data (i.e., GB flag and SID) and clock quality data (i.e., SSMB), and sends them to the clock selector 12. The S1 **byte setting** unit prepares a clock status message in S1 byte, which contains synchronization control data (GB flag and SID) and clock quality data (SSMB). The Z1#2 byte setting unit 11-2 sets the **identifier of the network element** to Z1#2 byte. Thus the network management station 20 sets the SID value of each NE port element and thus forming the NEID value. Furthermore, each NE transmitting the S1 byte has an SSMB (Fig. 8) attached that indicates the quality level and the source identifier, which is set to indicate the originating source node. Thus, Takeguchi does disclose the setting the SID values of each port to the NE identifier values of the NE to which that port is directly connected.

With respect to applicant's remarks on bulleted items, examiner has further explained within each limitation where Takeguchi meets the limitations and rejected accordingly.

Since Takeguchi meets all limitations of claims 15-20, therefore claims 15-20 stand rejected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj Jain whose telephone number is 571-272-3145. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone numbers for the

Art Unit: 2664

organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

A handwritten signature in black ink, appearing to read "Raj Jan". The signature is fluid and cursive, with the first name "Raj" and last name "Jan" clearly distinguishable.

RJ

March 1, 2006